

What is claimed is:

1. An electric heating type rolling device for rolling a metal strip moving in a direction, comprising:

at least one pair of work rolls for rolling said metal strip while contacting the metal strip;

a power supply for generating a pulse current; and

first and second conductive electrode means which are electrically connected to said power supply for applying said pulse current to said metal strip, the first conductive electrode means being disposed in a location before said metal strip passes through said work rolls, and the second conductive electrode means being disposed opposite to the first conductive electrode means in a location after said metal strip has been rolled by said work rolls and passed thereby.

2. The electric heating type rolling device of Claim 1, wherein said first and second conductive electrode means are respectively implemented as a pair of contact members which are disposed contactingly above and below said metal strip,

each said contact member includes a first contact portion contacting said metal strip, a flat portion which is extended from an end of the first contact portion toward said work rolls while being spaced apart from said metal strip, and a second contact portion which is extended from an end of the flat portion to contact said metal strip.

3. The electric heating type rolling device of Claim 2, wherein said second contact portion is forked into several pieces along the transverse direction of said metal strip.

4. The electric heating type rolling device of Claim 2, wherein said contact members are provided with an elastic member for biasing said second contact portion toward said metal strip to contact said metal strip with no gap.

5. The electric heating type rolling device of Claim 1, wherein said first and second conductive electrode means are respectively implemented as a pair of electrode rolls which are disposed contactingly above and below said metal strip.

6. An electric heating type rolling device for rolling a metal strip moving in a direction, comprising:

at least one pair of work rolls for rolling said metal strip while contacting said metal strip;

a power supply for generating a pulse current; and

a conductive electrode means which is disposed in a location before said metal strip passes through said work rolls,

wherein said work rolls and said conductive electrode means are electrically connected to said power supply for applying the pulse current to said metal strip.

7. The electric heating type rolling device of Claim 6, wherein said conductive electrode means is implemented as a pair of contact members which are disposed contactingly above and below said metal strip,

each said contact member includes a first contact portion contacting said metal strip, a flat portion which is extended from an end of the first contact portion toward said work rolls while being spaced apart from said metal strip, and a second contact portion which is extended from an end of the flat portion to contact said metal strip.

8. The electric heating type rolling device of Claim 7, wherein said second contact portion is forked into several pieces along the transverse direction of said metal strip.
9. The electric heating type rolling device of Claim 7, wherein said contact members are provided with an elastic member for biasing said second contact portion toward said metal strip to contact said metal strip with no gap.
10. The electric heating type rolling device of Claim 6, wherein said conductive electrode means is implemented as a pair of electrode rolls which are disposed contactingly above and below said metal strip.